

WHAT IS CLAIMED IS:

1. A swing device comprising:
a supporter;
5 a seat suspended on the supporter to swing in front and back directions;
a permanent magnet installed in the seat; and
an electromagnet installed to face the permanent magnet in a swing path to have the
same polarity as that of the permanent magnet,
wherein the electromagnet is selectively driven when the permanent magnet
10 approaches, generating a repulsive force for the permanent magnet.

2. A swing device as claimed in claim 1, wherein the electromagnet includes an iron
core, a primary coil wound around the iron core, a power source for supplying electric current
to the primary coil, and a switching unit disposed between the primary coil and the power
15 source so as to selectively interrupt current supply from the power source to the primary coil.

3. A swing device as claimed in claim 2, wherein the electromagnet further includes a
secondary coil for generating induced current when the permanent magnet approaches so as
to operate the switching unit, and
20 one end of the secondary coil diverges into two portions each connected with the
primary coil and the switching unit, and the other end of the secondary coil is connected with
the power source.

4. A swing device as claimed in claim 3, wherein the switching unit is a transistor.

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5. A swing device as claimed in claim 1, wherein the permanent magnet is installed in a central position under the seat, and the electromagnet is installed directly under the permanent magnet to face the same with a certain distance.

5 6. A swing device as claimed in claim 5, wherein the permanent magnet and the electromagnet are spaced apart with each other by a certain distance in the swing direction when the seat is positioned in a center position of a swing trajectory.